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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,345	03/26/2004	Russell Bonaventura	LEAP:135US	1573

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EXAMINER	
PRITCHETT, JOSHUA L	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/811,345	BONAVENTURA ET AL.	
	Examiner	Art Unit	
	Joshua L. Pritchett	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin (US 5,295,052).

Regarding claim 1, Chin teaches an illumination source (34); a heat sink assembly (80) surrounding the illumination source (Fig. 5) and a plurality of fins (Fig. 5) formed at the heat sink assembly and operatively arranged to conduct heat away from the illumination source and to transfer the heat to air passing by or over the assembly (col. 2 lines 55-60). Chin lacks specific reference to a microscope. Chin does state that the device is used for medical/surgical applications (abstract). It is extremely well known in the art to use microscopes in combination with light sources for medical/surgical applications. Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Chin light source used in combination with a microscope as suggested by Chin for the purpose of

allowing surgery to be performed on parts of the body too small to be easily observed with the naked eye.

Regarding claim 2, Chin teaches the heat sink further comprises an inner wall (top of 36) and an outer wall (bottom of 36) separated by an air gap (Fig. 5).

Regarding claim 3, Chin teaches a first fin from the plurality of fins is connected to the outer wall and a second fin from the plurality of fins is connected to the inner wall (Fig. 5).

Claims 4-12, 14-24, 26-43 and 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin (US 5,295,052) in view of Messinger (US 5,076,660).

Regarding claim 4, Chin teaches the invention as claimed including an air inlet (112) but lacks reference to a baffle directing the airflow. Messinger teaches the heat sink assembly (abstract) comprising a baffle (15, 19 and partitions shown in Fig. 1) located proximate the air inlet (Fig. 1) and operative arranged to deflect air entering via the inlet and to occlude the emanation of light form the source through the air inlet (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Chin invention include the baffles of Messinger for the purpose of greater cooling efficiency of the heat sink assembly.

Regarding claims 5, 6, 17, 18, 36 and 37, Chin teaches the invention as claimed including slots to formed in a base plate to allow rapid removal and replacement of components of the device (col. 3 lines 13-20). Chin lacks reference to the use of baffles to direct airflow through the heat sink assembly located in those slots. Messinger teaches the baffle plate overlies the air inlet (Fig. 1). Messinger further teaches a first plurality of baffles (Fig. 1). It would be obvious

to one of ordinary skill in the art at the time the invention was made to use the slot teaching of Chin to mount the plurality of baffles taught by Messinger for the purpose of using the baffles to direct air across the heat sink for efficient cooling and allow the baffles to be removed to clean off any debris brought into the device by the air inlet.

Regarding claims 7-12, 14, 19-24, 29, 38-43 and 46, Chin teaches the invention as claimed but lacks reference to the use of baffles to direct the airflow. Messinger teaches a baffle having an arcuate shape (15). The element, 15, acts as a baffle directing airflow into the coupling fixture. It would be obvious to have the other baffles (19 and partitions) have the same shape as 15 for the purpose of better directing the airflow. Messinger further teaches each of the baffles forms an opening between an edge of each baffle and the baffle plate disposed in a first direction (Fig. 1). Messinger further teaches the division of the first plurality baffles into two other pluralities of baffles. The second plurality of baffles (15 and 19) has an opening in the first direction and is parallel to the air inlet (9) (Fig. 1). The third plurality of baffles (partitions) has an opening in a second direction opposite the first direction and is perpendicular to the air inlet (9) (Fig. 1). Messinger further teaches an air outlet (13) wherein the heat sink assembly is operatively arranged to induce airflow into the air inlet, across the heat sink, and through the air outlet (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Chin invention include the baffles of Messinger for the purpose of greater cooling efficiency of the heat sink assembly.

Regarding claims 15, 16, 26, 30, 35 and 47-50, Chin teaches an illumination source (34); a heat sink assembly (80) surrounding the illumination source (Fig. 5) and a plurality of fins (Fig. 5) formed at the heat sink assembly and operatively arranged to conduct heat away from the

illumination source and to transfer the heat to air passing by or over the assembly (col. 2 lines 55-60). Chin lacks specific reference to a microscope. Chin does state that the device is used for medical/surgical applications (abstract). It is extremely well known in the art to use microscopes in combination with light sources for medical/surgical applications. Official Notice is taken. Chin further lacks reference to the use of baffles. Messinger teaches the heat sink assembly (abstract) comprising a baffle (15, 19 and partitions shown in Fig. 1) located proximate the air inlet (Fig. 1) and operative arranged to deflect air entering via the inlet and to occlude the emanation of light form the source through the air inlet (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Chin invention include the baffles of Messinger for the purpose of greater cooling efficiency of the heat sink assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Chin light source used in combination with a microscope as suggested by Chin for the purpose of allowing surgery to be performed on parts of the body too small to be easily observed with the naked eye.

Regarding claims 27, 31 and 33, Chin teaches the heat sink further comprises an inner wall (top of 36) and an outer wall (bottom of 36) separated by an air gap (Fig. 5).

Regarding claims 28, 32 and 34, Chin teaches a first fin from the plurality of fins is connected to the outer wall and a second fin from the plurality of fins is connected to the inner wall (Fig. 5).

Claims 13, 25, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin (US 5,295,052) in view of Messinger (US 5,076,660) as applied to claims 5, 17 and 36 above, and further in view of Rauen (US 6,698,200).

Chin in combination with Messinger teaches the invention as claimed including a baseplate (14) with the air inlet disposed in the base plate (Fig. 2) but lacks reference to a thermal insulation layer. Rauen teaches the use of a thermal insulation layer between the baffles plate (60) and the base plate (Fig. 3). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the thermal insulation layer of Rauen in the Chin/Messinger invention for the purpose of preventing the heat created by the light source from adversely impacting other components of the microscope outside the heat sink assembly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP

DREW A. DUNN
SUPERVISORY PATENT EXAMINER